

TIGHT SANDY LOAM

RANGE SITE DESCRIPTION

FE-56-64

Land Resource Area East Cross Timbers

Location Gainesville, Bonham, Sherman

Date 9/15/72

1. TOPOGRAPHY AND ELEVATION: This site occurs as level to gently rolling country with slopes ranging from 1 to 10 percent. Slopes are dominantly 2 to 5 percent.
2. SOILS:
 - a. These are moderately deep to deep soils with fine sandy loam surfaces and clayey subsoils over shale or sandstone. The sandstone usually rests on shale. These soils are typically well drained with slow internal drainage and slow permeability. Up to 20 percent by volume of sandstone fragments ranging to 12 inches or more in diameter may occur on steeper slope gradients. Surface crusting often results when the site is abused.
 - b. Some soil taxonomic units which characterize this site are:
Truce fine sandy loam
 - c. Specific site location:
3. CLIMAX VEGETATION:
 - a. The natural potential plant community for this site is an oak savannah with post oak as the principal woody species. The woody overstory shades about 25-30 percent of the ground when the site is in climax. Little bluestem dominates the understory vegetation making up about 20-35 percent of the total annual yield on the site. Sideoats grama is a subdominant. A large number of forbs and low growing woody plants expand the potential multiple uses of this site.

RELATIVE PERCENTAGE

<u>Grasses</u>	<u>70%</u>	<u>Woody</u>	<u>20%</u>	<u>Forbs</u>	<u>10%</u>
Little bluestem	35	Postoak	15	Gayfeather	
Sideoats grama	15	Hackberry		Lespedezas	
Big bluestem		Greenbriar		Wildbeans	
Indiangrass		Bumelia		Catclaw sensitive-	
Switchgrass		Blackjack oak	5	briar	
Canada, Virginia		Elm		Western indigo	10
wildrye	10	Carolina snail-		Tickclovers	
Purpletop		seed		Yellow neptunia	
Meadow, tall		Coralberry		Engelmann daisy	
dropseed		Dewberries	T	Bundleflower	
Scribner panicum		Blackberries		Maximilian sun-	
Fringeleaf paspalum		Red ash		flower	
Silver bluestem	10			Gaura	
Carolina jointtail				Black samson	T
Purple lovegrass				Penstemon	
Hairy grama					
Texas wintergrass					

b. As retrogression occurs from abuse by livestock, little bluestem, sideoats grama, big bluestem, Indiangrass, switchgrass and perennial wildryes decrease in vigor and abundance. These plants are replaced in the community by such plants as meadow and tall dropseed, low panicums and paspalums, catclaw sensitivebriar and gayfeather. As deterioration of the climax herbaceous community takes place, the woody overstory of oak and woody underbrush of greenbriar, coralberry and others increase. These woody plants form a dense canopy allowing only sparse amounts of shade tolerant herbaceous species to survive on many deteriorated site locations.

c. Approximate total annual yield of this site in excellent condition ranges from 2500 pounds per acre in poor years to 4500 pounds per acre of air-dry vegetation in good years.

4. WILDLIFE NATIVE TO THE SITE: Deer, dove and quail are native to this site as well as several other wildlife birds and small animals.

5. GUIDE TO INITIAL STOCKING RATE:

<u>a. Condition Class</u>	<u>Climax Vegetation</u>	<u>Ac/AU/YL</u>
Excellent	76-100	10-13
Good	51-75	13-16
Fair	26-50	16-20
Poor	0-25	20+

b. Introduced Species

<u>Species</u>	<u>Percent of the Area Established</u>			
	<u>100-76</u>	<u>75-51</u>	<u>50-26</u>	<u>25-0</u>
King Ranch, caucasian bluestem	10-14	14-18	18-22	22+

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. Cattle

<u>Primary 2/</u>	<u>Secondary 3/</u>	<u>Low Value 4/</u>
Little bluestem	Meadow, tall	Mesquite
Big bluestem	dropseed	Oldfield threeawn
Switchgrass	Scribner panicum	Western ragweed
Indiangrass	Fringeleaf paspalum	Crotons
Sideoats grama	Carolina jointtail	Broomsedge bluestem
Purpletop	Purple lovegrass	Splitbeard bluestem
Canada, Virginia	Hairy grama	Prairie senna
wildrye	Texas wintergrass	Sneczeweds
Western indigo	Silver bluestem	Common persimmon
Maxmilian sunflower	Gayfeather	
Lespedezas	Yellow neptunia	
	Wildbeans	
	Hackberry	

b. Deer

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Greenbriar	Oak buds & twigs	Mesquite
Hackberry	Bumelia	Common persimmon
Maxmilian sunflower	Sedges	Western ragweed
Engelmannndaisy	Gayfeather	Threeawns
Wildbeans	Texas wintergrass	Texas grama
Tickclovers	Carolina snailseed	Beebalm
Elm	Hawthorn	Prairie senna
	Lespedezas	
	Oxalis	

c. Goats

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Greenbriar	Western indigo	Mesquite
Bumelia	Big bluestem	Common persimmon
Engelmann daisy	Indiangrass	Western ragweed
Maximilian sunflower	Postoak	Broomweed
Catclaw sensitivebriar	Sida & nettle	Texas grama
Yellow neptunia	Little bluestem	Oldfield threeawn
Tickclovers	Wildryes	
Wildbeans	Sideoats grama	
	Gaura	

d. Dove and Quail 5/

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Western ragweed	Trailing wildbean	Fluffy-seeded
Prairie senna	Gaura	grasses
Croton	Bundleflower	Threeawns
Sunflowers	Tickclovers	Thistles
Acorns		Snicezeweeds
Other mast		
Yellow neptunia		

- 1/ This plant rating system gives guidance on animal preference for plant species as well as indicating competition between kinds of animals for various plants. Grazing preference does not necessarily reflect a plant's ecological place in the climax plant community. Grazing preferences change depending upon the animal; upon plant palatability and nutritive value, stage of growth, season of use relative abundance, availability and plant associations.
- 2/ These species generally decrease under prolonged heavy grazing use.
- 3/ These plants usually increase initially, then decrease under prolonged heavy grazing use.
- 4/ These plants continue to increase with prolonged heavy grazing use.
- 5/ For these species the terms primary, secondary and low value indicate bird preference only. They do not indicate plant response to feeding pressure; nor do they have any ecological significance.

APPROVED:

J. H. K. Beasley, Jr.

AREA CONSERVATIONIST

9/25/72

DATE

Joe B. Norris

FIELD SPECIALIST - RANGE

9/25/72

DATE